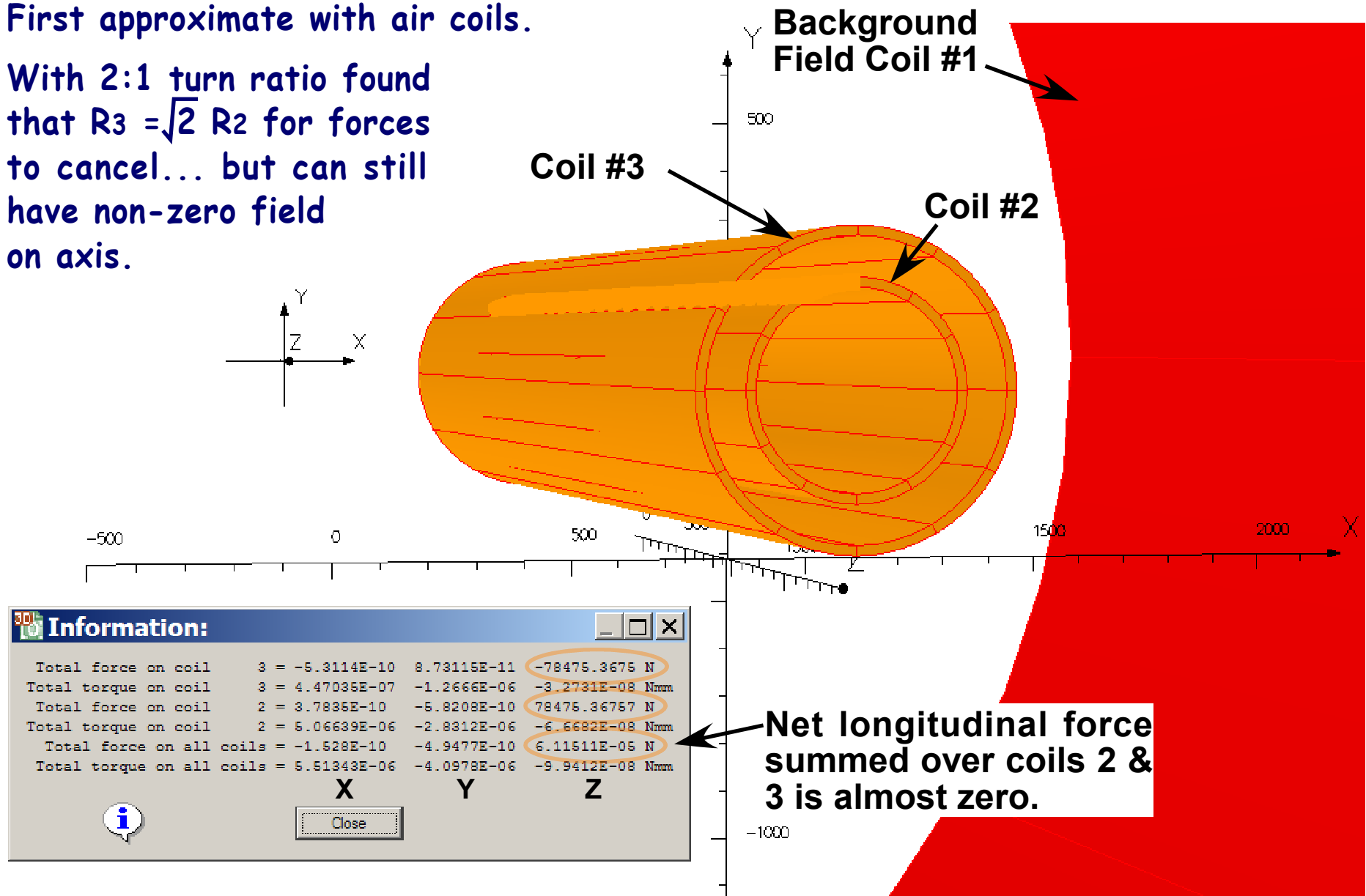


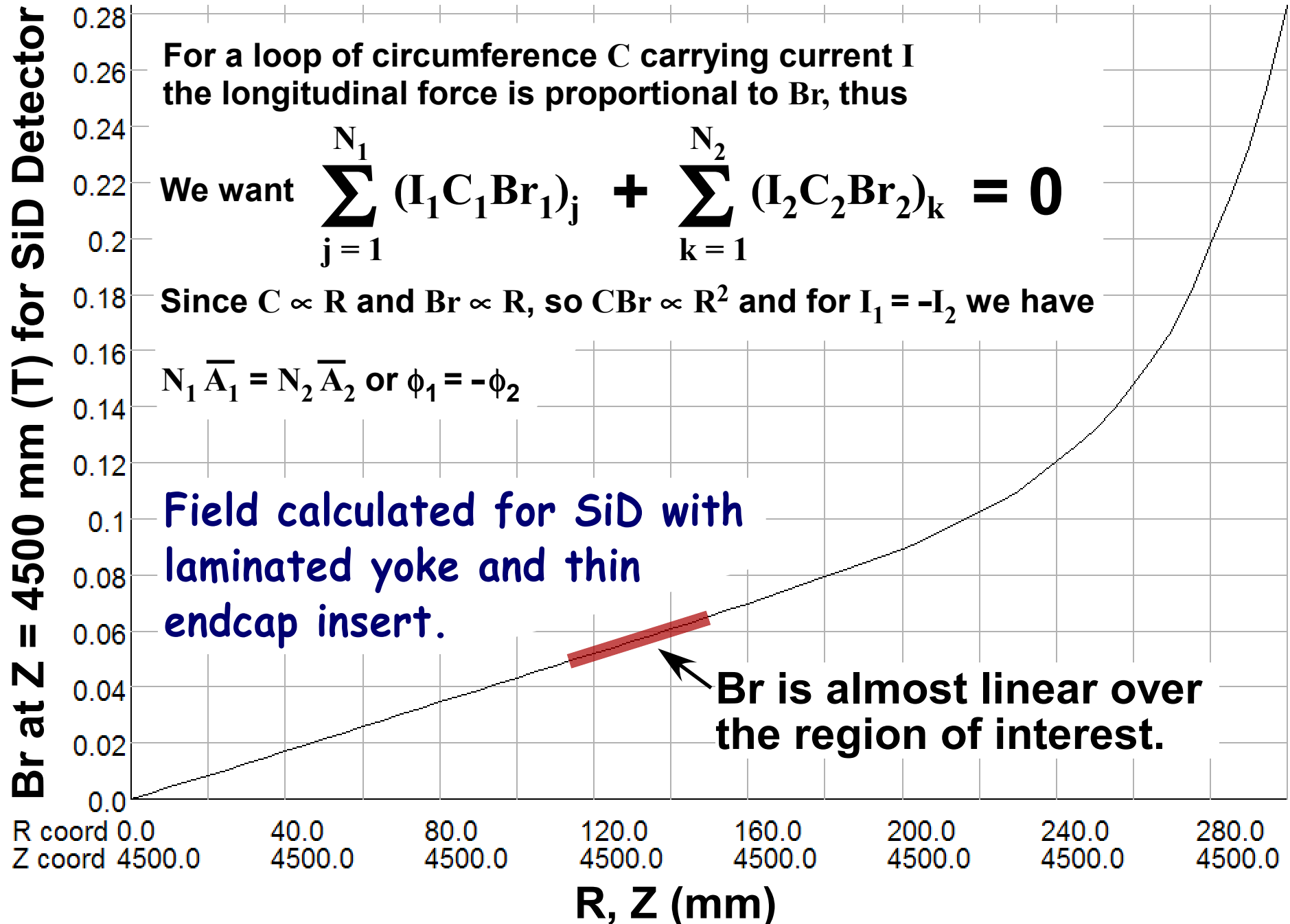
# Concept for Force Neutral Anti-Solenoid

First approximate with air coils.

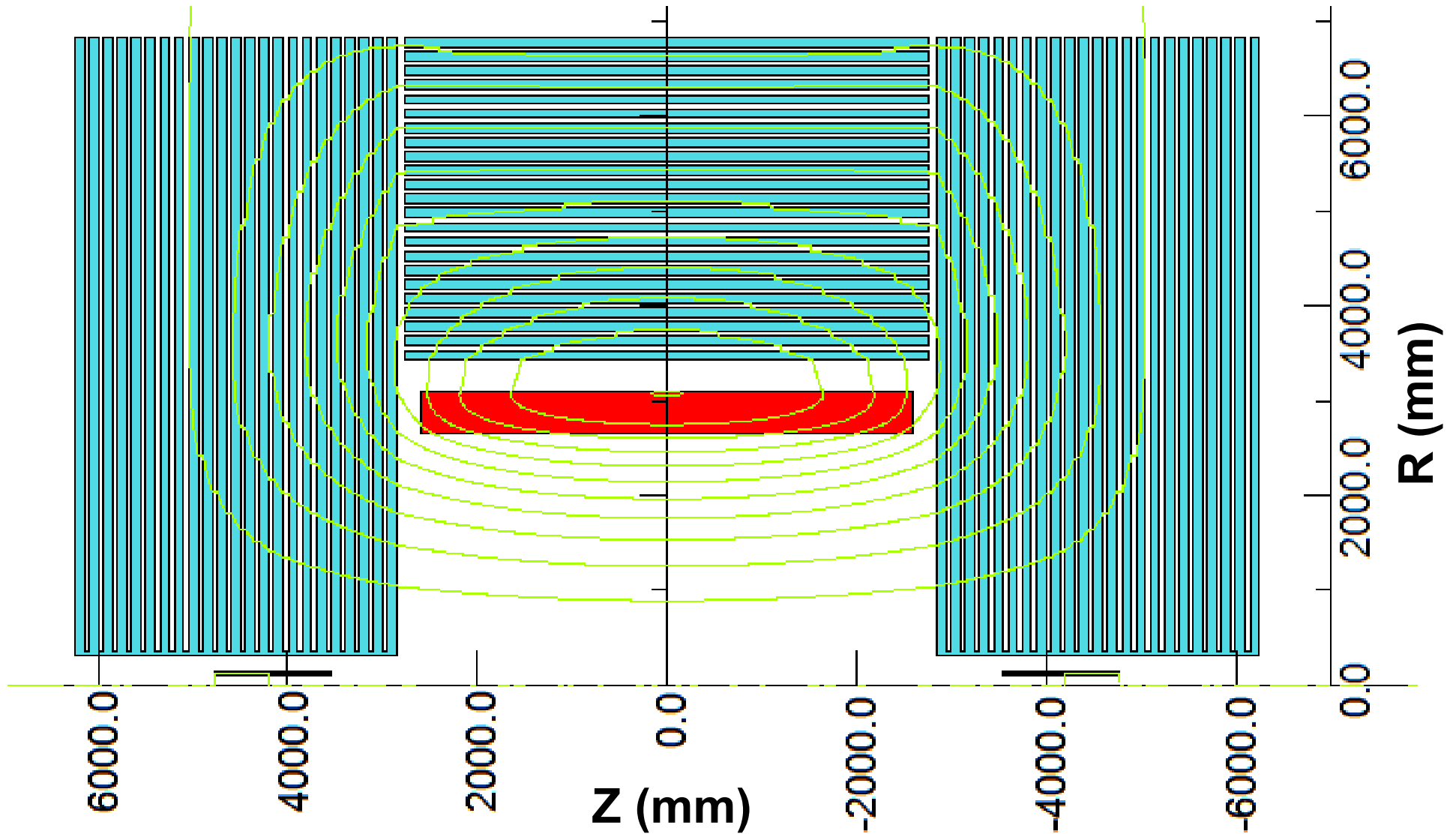
With 2:1 turn ratio found that  $R_3 = \sqrt{2} R_2$  for forces to cancel... but can still have non-zero field on axis.



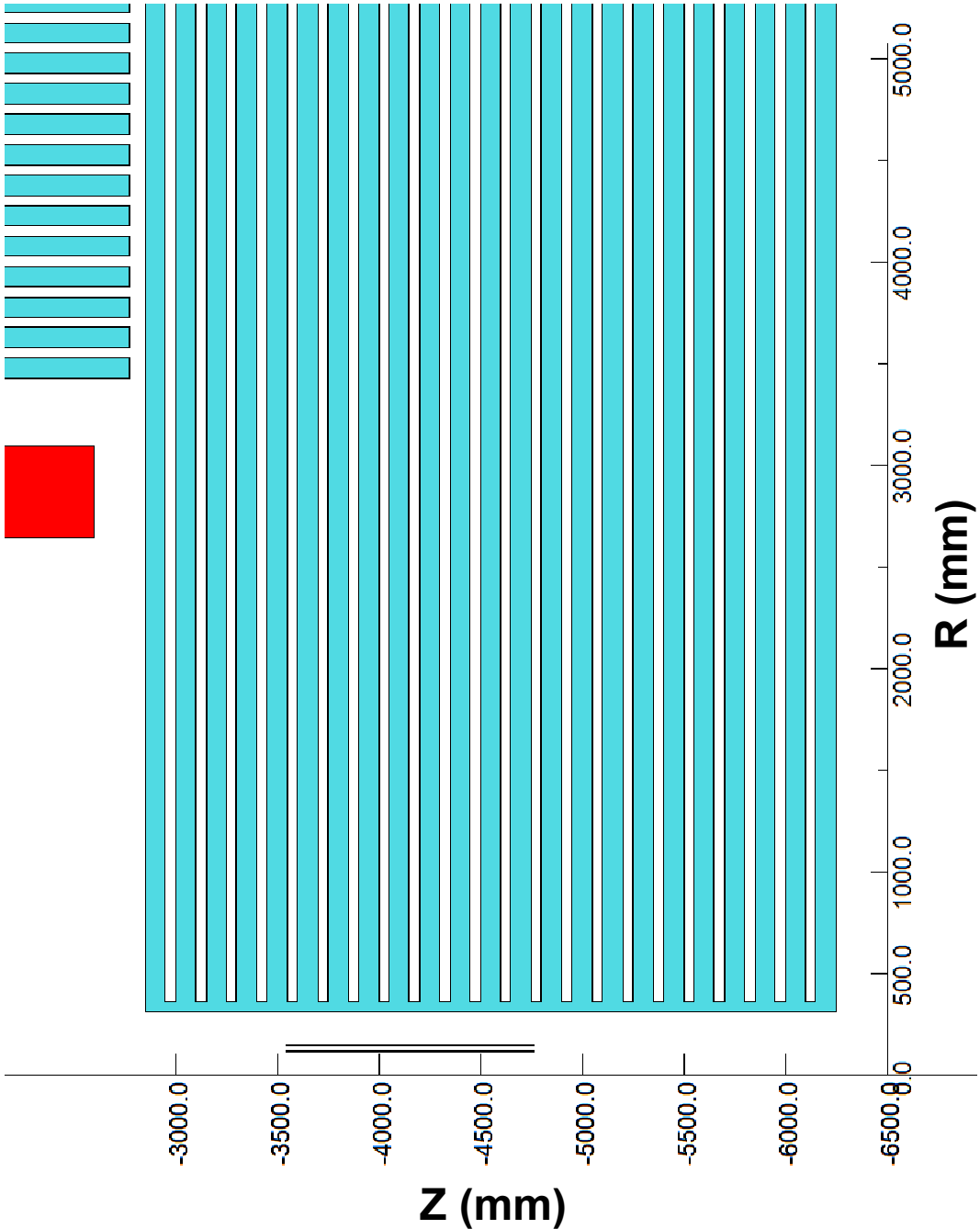
# Concept for Force Neutral Anti-Solenoid



# Force Neutral Anti-Solenoid for SiD

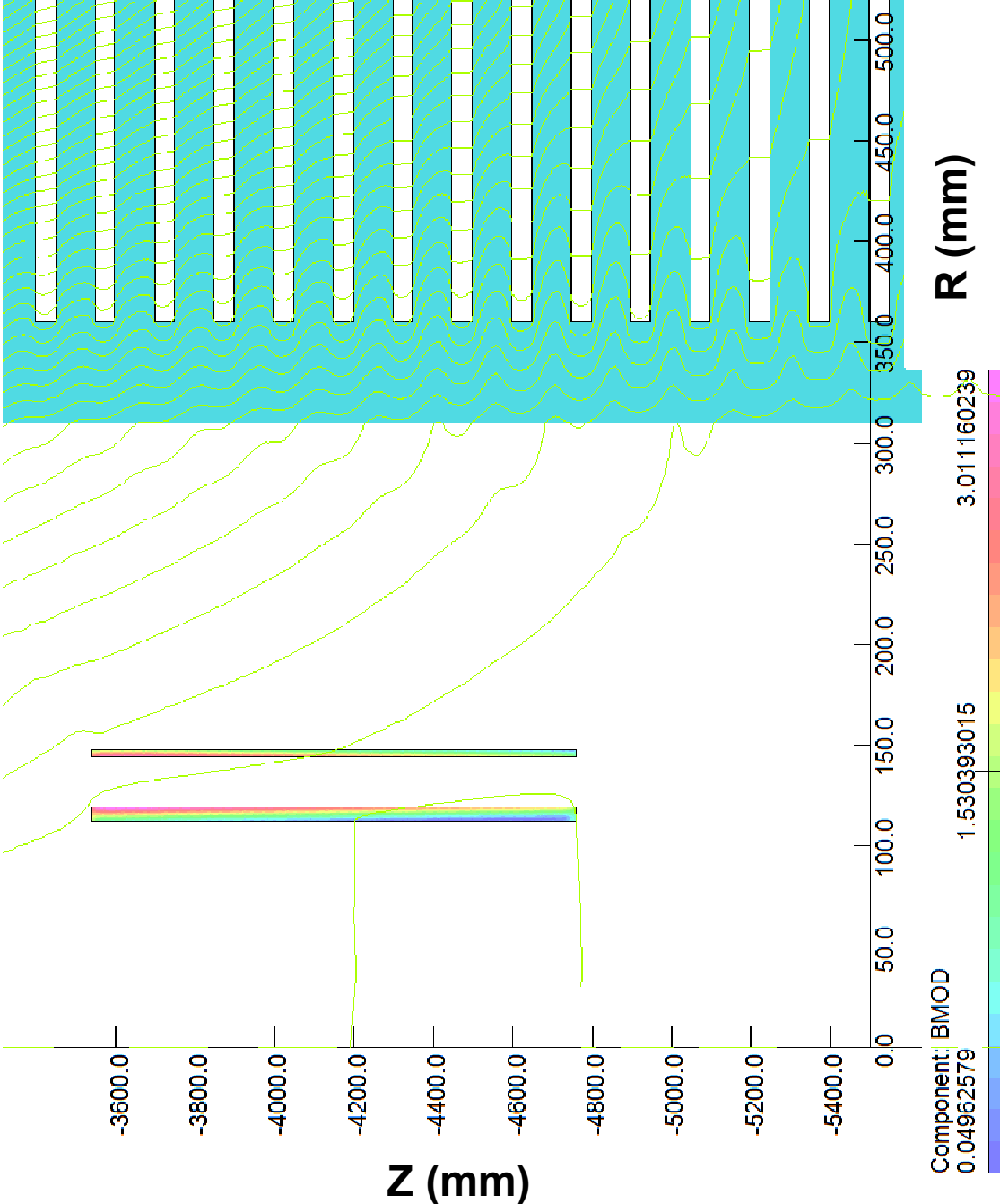


# Force Neutral Anti-Solenoid for SiD



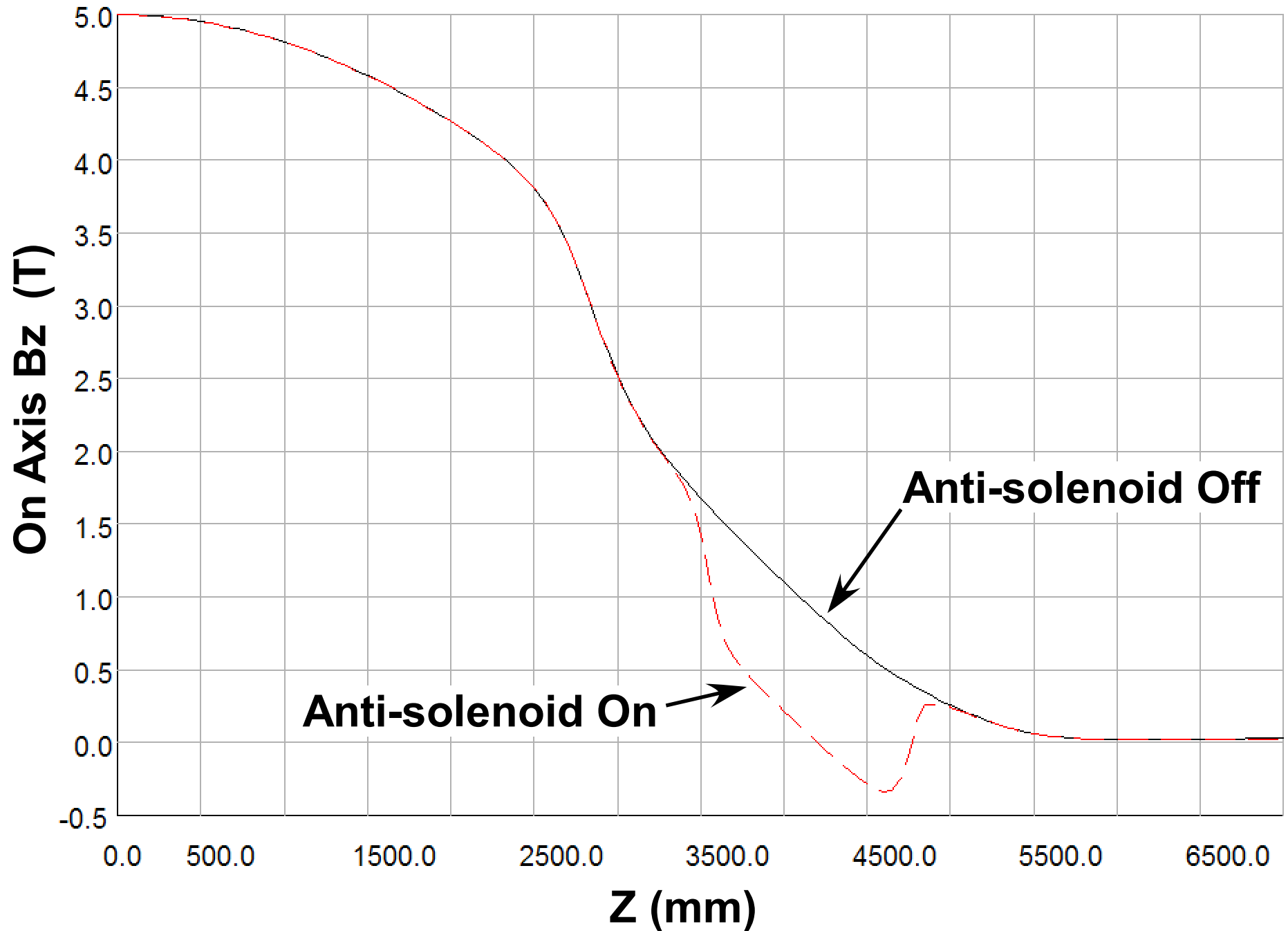
Design for 3.51 m L\*

# Force Neutral Anti-Solenoid for SiD



Note 10:1 Scale Change  
Inner/Outer Coil Forces Cancel

# Force Neutral Anti-Solenoid for SiD



# Force Neutral Anti-Solenoid for SiD

